What is CARL?

CARL stands for the Clean Air Reporting Log (CARL). It is the database used to enter, track, and report Carl Moyer Program project information.

What browser can I use to access CARL?

Mozilla Firefox is the preferred browser; some forms and data may not render completely in other browsers. Please make sure you have the latest version of the Mozilla Firefox software on your computer. You can find a link to the browser at the bottom of the CARL home page.

How do I get help with CARL, reset my password, or report an issue?

E-mail your question, request, or concern to carlhelp@arb.ca.gov, or contact your air district liaison. You will find a link to the list of air district liaisons and program contacts on the CARL front page.

Can CARL determine if a project is eligible for funding?

No, CARL does not determine the eligibility of Moyer Program projects. Determination of eligibility is made through review of the Moyer Program Guidelines, by air district staff in consultation with CARB. However, CARL does calculate emission reductions, cost-effectiveness, and the maximum grant amount for most projects. CARL also provides the output to support yearly reporting by air districts.

What is the difference between the CARL Training and CARL Production databases?

CARL Production is the official reporting database for the Moyer Program, used by air district staff to report actual program information. The link to CARL Production is: http://www.arb.ca.gov/app/cmp/.

CARL Training, found at http://arb.ca.gov/app/cmp/training, is a practice database available to all users for training and testing. The training database is often the platform used to test new program tools and features before they are released into production. Data entered into the training database will be periodically purged and will not be saved or maintained.

What is the flow and general structure of the CARL database?

CARL is a MySQL database (SQL stands for Structured Query Language). Users log into an on-line interface and enter program information into on-line forms. The general data flow and relationships are shown in the chart below.
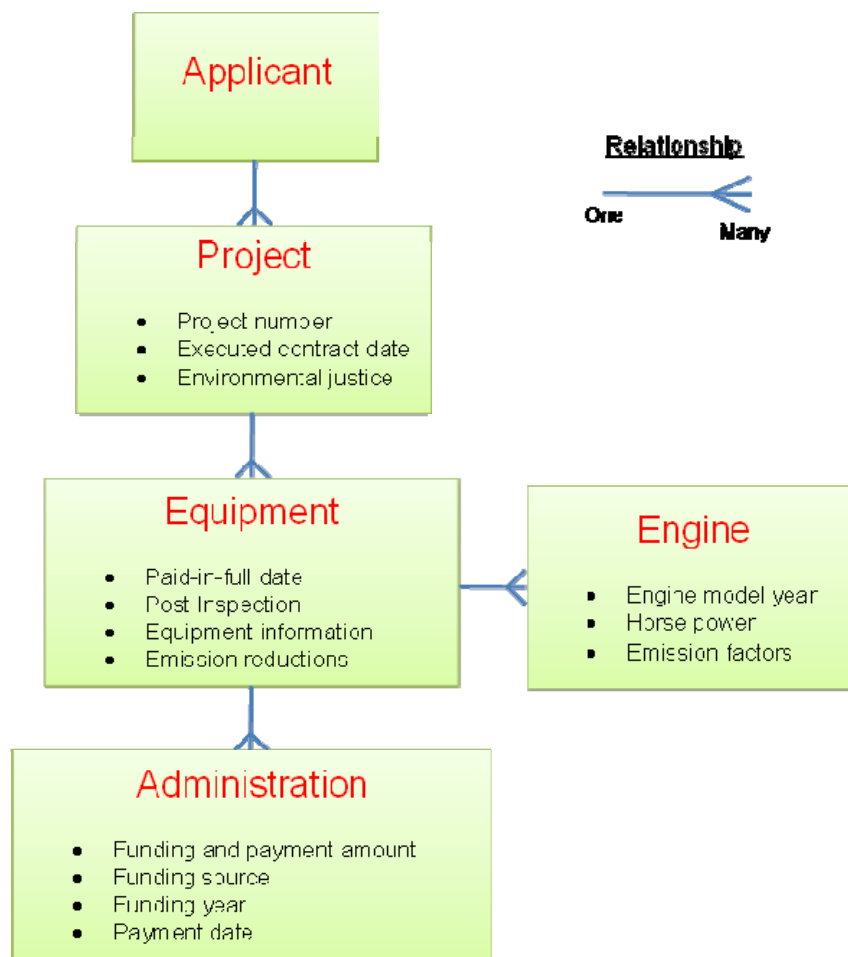
What types of projects does CARL track?

The Moyer Program funds a variety of equipment types called source categories that are tracked in CARL. These categories include:

- o **On-Road**: Heavy-duty vehicles.
- o **Off-Road**: Agricultural, construction, and other off-road equipment, including both portable and stationary agricultural equipment.
- o **Marine**: Replacement of engines on marine vessels.
- o **Lawn and Garden Equipment Replacement**: New replacement cordless, zero-emission electric lawn mowers.
- o **Car Scrap (VAVR)**: Light-duty vehicle replacements.
- o **Locomotive**: Replacement of engines on locomotives.
- o **Shore Power**: Alternate source of power for marine vessels at berth.
- o **Infrastructure**: Electric and alternative fuel infrastructure.

Source categories can be further divided into one of four project types; where eligible in the Moyer Guidelines.

- o **Replacement**: Replacement of the equipment and engine (i.e., cab, chassis)
- o **Repower**: Replacement of an engine with a newer engine.

- o <u>Retrofit</u>: Installation of a retrofit device (a diesel exhaust filter) on an engine.
- o <u>Vehicle Retirement</u>: Scrappage of an old vehicle or equipment such as a car or lawnmower.

What is the Non-Calculation Form?

The non-calculation form does not do any calculations, and provides no data validation. It is used for unconventional projects lacking a specific form. Users may enter case-by-case (CBC) or unconventional projects into the non-calculation form under specific circumstances. The non-calculation form is also used for shore power, off-road VIP, infrastructure projects, and two-for-one equipment replacement projects because there is no calculation form currently available for these categories.

Please note that the non-calculation form does not automatically populate the administration information such as the funding amount or funding year. The air district must separately enter the trigger dates on the admin pages. In the case of off-road VIP, the executed contract date is the date the air district issues a voucher. Please consult your liaison and/or carhlelp@arb.ca.gov before reporting any project information using the non-calculation form.

How are On-Road Voucher Incentive Program (VIP) projects different in CARL?

On-road VIP projects have streamlined data entry, so the user only has to visit one form to enter all the pertinent project, equipment, engine, and administration information. As a result, these projects have a one-to-one relationship; that is, a project may only have one equipment. VIP projects may not be imported through a batch file.

What milestone triggers are used to generate the Required Reports?

The Required Reports function in the CARL Report Utility uses milestone dates, funding, and payment information to determine the status of projects to be included in the reports. Certain fields must be populated for the project to be displayed in a report. Below are the necessary logic and triggers for the cumulative and liquidated reports in CARL. For a more complete discussion of project status in cumulative and liquidation reports, see the Definition and Triggers document at:
https://www.arb.ca.gov/app/cmp/training/docs/CARL_Report_Definitions_and_Triggers_4aug2017.pdf

<u>Cumulative Report</u> – A project must have an executed contract date and equipment must be funded for the project to display and be counted in the cumulative (executed) report. A project is considered executed when all equipment within the project are funded and a contract execution date has been entered. The triggers for inclusion in the cumulative report are:

1. *Executed contract date*: The project must have an executed contract

   date no later than June 30 of the reporting year; the executed contract date field is available in the first administration form. In the case of on-road and off-road VIP projects the field that populates the executed contract date is called "Voucher Approval Date."

2. *Funds executed*: Equipment must have funding information including the funding amount, funding year, and funding source; these fields are found in the second administration page ("funding, payments, and withholds"). A "project" is executed whereas "equipment" are funded. Only funded equipment in an executed project are considered executed.

3. Expended: A project status "expended" may appear in the Cumulative report. For a project to be considered expended it must meet the executed contract report requirements above AND at least one piece of equipment in the project must be operational and paid.

Liquidation Report – A funding year's liquidation status can be checked through the CARL Liquidation Report. By June 30 of each year, air districts must have liquidated all Moyer Program funds associated with the funding year four calendar years prior, as well as interest, recaptured funds, and other funds added to the funding target for that funding year. For example, funds awarded for Year 18 (fiscal year 2015-2016), and any other funds assigned to that funding year through reporting in previous years, must be fully liquidated by June 30, 2020.

Following funding year liquidation the year is frozen; projects paid with funds from that funding year cannot be edited except through request to carlhelp@arb.ca.gov. This is to ensure CARL data continue to reflect compliance with statutory requirements for timely liquidation.

How is project liquidation determined?

For a project to be considered liquidated, it must be executed and ALL the funded equipment in the project must be paid-in-full and post-inspected to confirm they are operational. The trigger date is the last payment date and the liquidated amount is the paid and withheld amounts. The liquidated triggers are:

1. *Paid date*: The date trigger is the last payment date. If all the equipment have a payment date no later than June 30 of the reporting year, then the entire project is considered liquidated.

   If there is a paid date after June 30, then the project is NOT liquidated in that reporting cycle.

2. *Funds liquidated*: The liquidated amount is the sum of all the paid and withheld amounts.

What is the Query Tool?

Also found in the CARL Report Utility, the Query Tool displays program data at the equipment level, and shows key reporting triggers such as executed contract dates, paid-in-full status, and post-inspection dates. You can also see the reporting status for projects –- liquidated, expended, executed, or blank. This tool helps the user find equipment within a project that may be missing triggers – please see the previous question for an explanation of triggers.

Please note that the Query Tool always shows the funding amount whereas Required Reports may show only the paid and withheld amounts, depending on the reporting status of the project. All of the equipment that appears in the Query Tool responses is funded; unfunded equipment do not show up in the Query Tool or in Required Reports.

The Query Tool also shows project information that may not be credited in the Required Reports, such as non-match funded equipment and early (pre-Funding Year 13) Moyer interest funded equipment.

Can I view reported data in a Microsoft Excel spreadsheet?

Yes. You can generate a comma separated value (CSV) file from the CARL Report Utility, and then import it to Microsoft Excel. To format the CSV data in Excel, follow these steps:

1. Save the CSV file to a known location;

    From Excel select **File > Open** and navigate to your file. If you do not see your file, ensure that "All Files (*.*)" is selected. The Import Wizard should automatically launch;

2. Select "delimited" toggle and click Next; and

3. Select "comma" as the delimiter type and click finish.

Please note that Microsoft Excel often reformats text it recognizes as dates. This frequently causes a problem for CARL users who utilize the Export Utility and the Query tool to verify data entered into the database.

What are Project Reports?

Individual project reports may also be generated to provide detailed information about individual projects, including emission factors. Project reports are generated as a PDF file.

Why do I see the same equipment information multiple times in the Query Tool output?

Project and equipment data may appear multiple times in the Query Tool

output for two reasons:

1. The equipment has multiple funding entries, possibly with different funding years and funding sources; and

2. The equipment has multiple main engines – a common issue for marine projects.

The user will want to ensure duplicate information is not included in summed data.

I am entering equipment information in CARL, but I have information that has no specific entry spot on this form. What should I do?

You may enter additional information or notes in the comment fields in the equipment and/or administration forms; there are several comment boxes available throughout CARL.

What is Cost-Effectiveness?

Cost-effectiveness is the measure of dollars provided to a project for each ton of covered emissions reduced. Projects are subject to cost-effectiveness limits. The general cost-effectiveness limit is $30,000 per weighted ton of emission reductions. Per SB 513, for school bus projects a second cost-effectiveness limit of $276,230 per weighted ton was added in 2016. Statute does not require infrastructure projects to meet a cost-effectiveness threshold.

For advanced technology engines that are zero-emission or meet the cleanest optional low-emission standards, the 2017 Guidelines allows air districts to choose to apply a cost-effectiveness limit of up to $100,000 per weighted ton for the incremental emission reductions beyond the current emission standards. This higher limit provides additional incentive to turn engines and fleets over to the cleanest certified technologies now emerging in the marketplace.

What is difference between a one-step and a two-step calculation, when a district applies the optional $100,000 cost-effectiveness limit?

Projects that involve application of two cost-effectiveness limits for increments of emissions reduced require a "two-step" calculation in CARL. This generally means the $30,000 cost-effectiveness will be used in the first-step and a $100,000 cost-effectiveness in the second step.

- For On-Road, if the baseline engine is dirtier than 0.20 g/bhp-hr NOx (standard) and a replacement engine has an Engine Emission Standard of a 0.02 g/bhp-hr NOx or cleaner, a two-step calculation may be used.

- For Off-Road, if the baseline engine is Tier 3 or dirtier and the replacement engine is an Electric, then this is a two-step calculation.

In all other scenarios, the calculation will be a one-step calculation using the $30,000 limit or the $100,000 limit.

Where can I find examples of one-step and two-step calculations?

Examples of one-step and two-step calculations are found in the *Example Calculations* document, under Supplemental Documents on the CARL Guidelines page (https://www.arb.ca.gov/msprog/moyer/guidelines/current.htm). The Table of Contents lists all the examples for On-Road, Off-Road, and other equipment categories (two-step calculations are marked "***"). Each example in the table of contents is a hyperlinked; clicking on the example name takes you to the example calculation.

How do I determine the maximum grant amount for a given project?

The maximum grant amount for any given project is the lowest of the three following calculations:

- The potential grant amount at the cost-effectiveness limit;
- The potential grant amount based on the maximum percentage of eligible cost; or
- The potential grant amount based on any maximum dollar amount or other funding cap as specified in the relevant source category chapter.

I funded equipment with a local funding source that is not listed in the pull-down menu. How do I enter that funding information?

CARL only tracks Moyer related program funds – including Moyer, Moyer Interest, Match, State Reserve (formerly Multi-District) and the Rural Assistance Program (RAP). Local funds used as match are an option when selecting fund source in CARL. There is also a fund source called non-match you may select, which does not show up in the required reports. You may also add explanations and notes to the comment field.

Moyer funds and all local air district AB 923 funds, and match funds must be included in the project cost-effectiveness calculation and are subject to cost-effectiveness limits (H&SC § 44283(d)). Other funds are not required to be included in the project cost-effectiveness calculation (H&SC § 44287.2(a)). Projects providing surplus emission reductions to be credited toward California's legally enforceable obligations in the SIP (H&SC § 44286(g)) must be entered into CARL, so the reduction can be credited to the Moyer Program.

Why do I get a duplicate project number and duplicate equipment identifier error message when I try to enter data into CARL?

CARL requires that every project within an air district have a unique "project number" and every equipment within a project have a unique "equipment identifier." For assistance, please consult your liaison and/or carlhelp@arb.ca.gov.

How are projects subject to SBX2_3 entered into CARL?

Portable or mobile farm equipment projects may be subject to SBX2_3. These projects may have up to a 10-year project life and may be eligible for funding up to the regulatory compliance deadline. In CARL on the equipment page, enter "project subject to SBX2_3" into the comment box.

ARB has approved changes to the Moyer Program cost-effectiveness limit and discount rate. The CARL database has been updated to reflect these changes. How does this affect existing data?

Existing data should not be affected by the updated CE limit or discount rate. New projects will default to the current CE limit and discount rate.

In addition, users may view preliminary calculation results without saving the changes by selecting "Calculate Only" rather than "Calculate & Save."

Can I change the cost-effectiveness limit and discount rate in CARL?

Yes, the CE limit and discount rate can be adjusted in the source category forms to a value up to the limit, but not beyond the maximum.

CARL assigns an applicable "guideline" and "sub-guideline" when the user creates a project; this sub-guideline establishes a default CE limit and discount rate. The user may change the default CE limit and discount rate in the source category form after the fact. However, the applicable guideline and sub-guideline may not be changed after it is established.

How do I report my Moyer Interest and Match In-Kind contributions?

An air district can report its Moyer interest and match in-kind contribution by selecting "Report Interest and In-Kind Match" link under the Administration section on the left-hand side menu.

What do I do with recaptured funds, the funds recaptured by my district from an applicant?

If the project is paid and the funds are recaptured, then do not adjust the grant amount, funding or payment amounts of the completed project in CARL, but rather report the recaptured funds on your yearly report certification form in the required location. Moyer staff will adjust your future target to reflect the recaptured funds.

My air district has received funding from an unplanned source, such as the Rural Assistance Program (RAP) or a re-direction from another air district. How do I handle this within CARL?

Usually the Moyer fiscal staff makes this change through the CARL Fiscal Tracking Tool. If the change has not been made please contact your Moyer team liaison. Once the changes are made, your air district can enter any associated project information into CARL.

Where are CARL changes listed?

See the CARL Release Notes accessible through the CARL home page.